



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D135-1027-253
Job Sheet 169670



Part No: D135-1027-253

Job Qty: 1 ea

Part Name: Mid Height Aft Crosstube



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 12/18/17

Job Tracking No:

Due Date: 1/11/18

Created By: Diane Baker

Type: Stock

Description:

Note: TBD DWG REV A IPP REV:A 17.01.24 NEW ISSUE DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Lead Time
					Setup hrs	Run Hrs	Workcenter / Supplier		
110	Purchasing	1 pcs	1/11/18	1/11/18	0.00	0.00	Purchasing		
120	Packaging	1 pcs	1/11/18	1/11/18	0.00	0.00	Packaging2		
130	QC	1 pcs	1/11/18	1/11/18	0.00	0.00	QC15		
140	Outsource	1 pcs	1/11/18	1/11/18	0.00	0.00	Outsource2		
150	Packaging	1 pcs	1/11/18	1/11/18	0.00	0.00	Packaging2		
160	QC	1 pcs	1/11/18	1/11/18	0.00	0.00	QC5		
170	Packaging	1 pcs	1/11/18	1/11/18	0.00	0.00	Packaging3-1	LG050	
180	QC21-FG	1 Ea	1/11/18	1/11/18	0.00	0.00	QC21		

Part Op 110 - Issue P/O to Tube Caron: 0038679 Manufacture D135-1027-253 as per dwg (Bend, Remove excess
Descriptions: material after bending, Drill) **Ship extrusion D6027-115** ***AS PER DWG NOTE 10, EXTREME CARE MUST BE
TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND
FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.*** Material release note is required
120 - Ensure material release note is attached
140 - ISSUE P/O: 039676 C OF C IS REQUIRED
150 - C OF C IS REQUIRED

DEC 19 2017

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
110-Purchasing	D135-1027-253P	1	0	0	0
	D6027-115	1	4	0	0

Part Specifications

Specifications could not be found.

Plex 12/18/17 2:37 PM dart.baker.diane



Dart Aerospace Ltd.

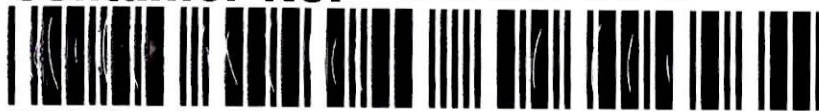
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA

TEL.: 1 613 632-5200

Email: sales@dartaero.com

www.dartaerospace.com

Container No: S053479



Mid Height Aft Crosstube

PART NO: D135 – 1027 – 253

Serial No/Batch: S053479

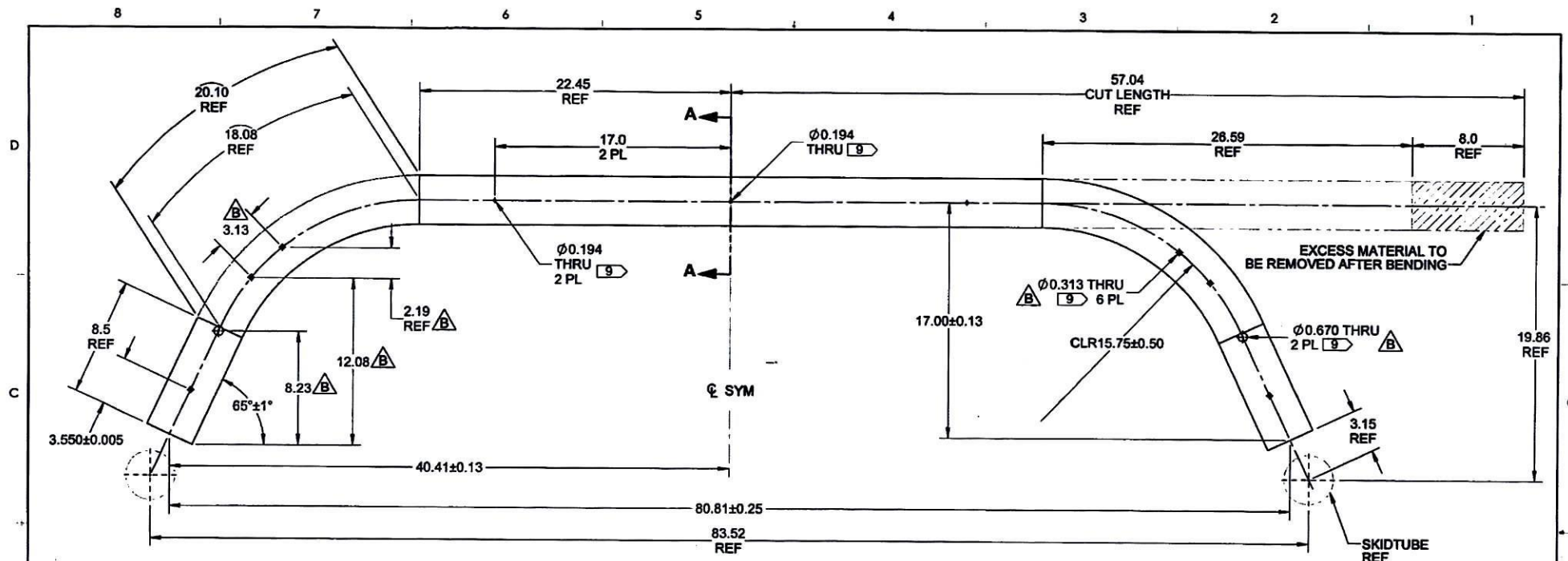
Revision:

Operation: Packaging

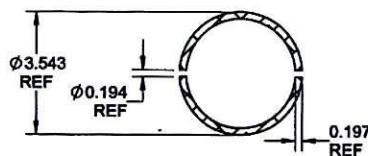
Change No:

Mfg Date: 03/21/18

Job No: 169670



D135-1027-253 MID HEIGHT AFT CROSSTUBE



SECTION A-A
SCALE 2X

NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6027-115
STRAIGHT LENGTH = 114.08±0.06 (BEFORE BENDING / TRIMMING)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER QSI 044 6.1
- 7) WEIGHT: 20.57 lbs
- 8) MAX TWIST: WITH XTUBE LAYED FLAT ON SURFACE, THE DIFFERENCE BETWEEN CUFF HEIGHTS FROM THE SURFACE SHALL BE NO LARGER THAN 0.25.
- 9) HOLES TO BE ALIGNED WITHIN 0.005 IN RELATION TO THE HOLE ON OPPOSITE SIDE OF CROSSTUBE.
- 10) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038. TO BE PERFORMED AFTER FINAL POST-BEND GRINDING. ANY ADDITIONAL GRINDING REQUIRES ANOTHER LPI INSPECTION.
- 12) MAXIMUM TUBE FLATTENING DUE TO BENDING IS 2% BASED ON OD.

RELEASED
2017-08-01
ECN 17-607

B	ADD QTY (2) Ø 0.313 HOLES, 3.13 WAS 3.15, 12.08 WAS 12.04. REASON: DESIGN CHANGE	ML	17.05.25
A	NEW ISSUE	ML	17.01.31
REV.	DESCRIPTION	BY	DATE
DESIGN	ML		
DRAWN	ML		
CHECKED	NO		
MFG. APPR.	DD		
APPROVED	WM		
DE APPR.	CP		
DATE	17.05.25		

APPROVED

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D135-1027-253** REV. B
SHEET 1 OF 1
SCALE
MID HEIGHT AFT XTUBE NTS

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DART AEROSPACE LTD		Work Order:	
Description: MID HEIGHT AFT CROSSTUBE		Part Number:	D135-1027-253
Inspection Dwg: D135-1027-253		Rev: B	Page 1 of 2

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.550" TYP	+/-0.005"					
8.23" TYP	+/-0.030"					
12.08" TYP	+/-0.030"					
2.19" REF	+/-0.030"					
3.13" TYP	+/-0.030"					
Ø.194" THUR 2PL	+0.006" -0.001"					
Ø.194" THUR	+0.006" -0.001"					
17.0" 2PL	+/-0.100"					
Ø.313" THUR 6PL	+0.006" -0.001"					
Ø.670" THUR 2PL	+0.006" -0.001"					

WALL THICKNESS MEASUREMENTS

LOCATION FROM CL	DWG DIM	R1	R2	R3	R4				
CL	0.197"								
21"	0.197"								
21"	0.197"								
CENTER OF BEND	0.197"								
CENTER OF BEND	0.197"								

OUTSIDE DIAMETER MEASUREMENTS

LOCATION	DWG DIM	M1	M2				
CL	3.543"	3.541	3.542				
CENTER OF BEND	3.543"	3.533	3.520				
CENTER OF BEND	3.543"	3.533	3.519				

CRUSHING

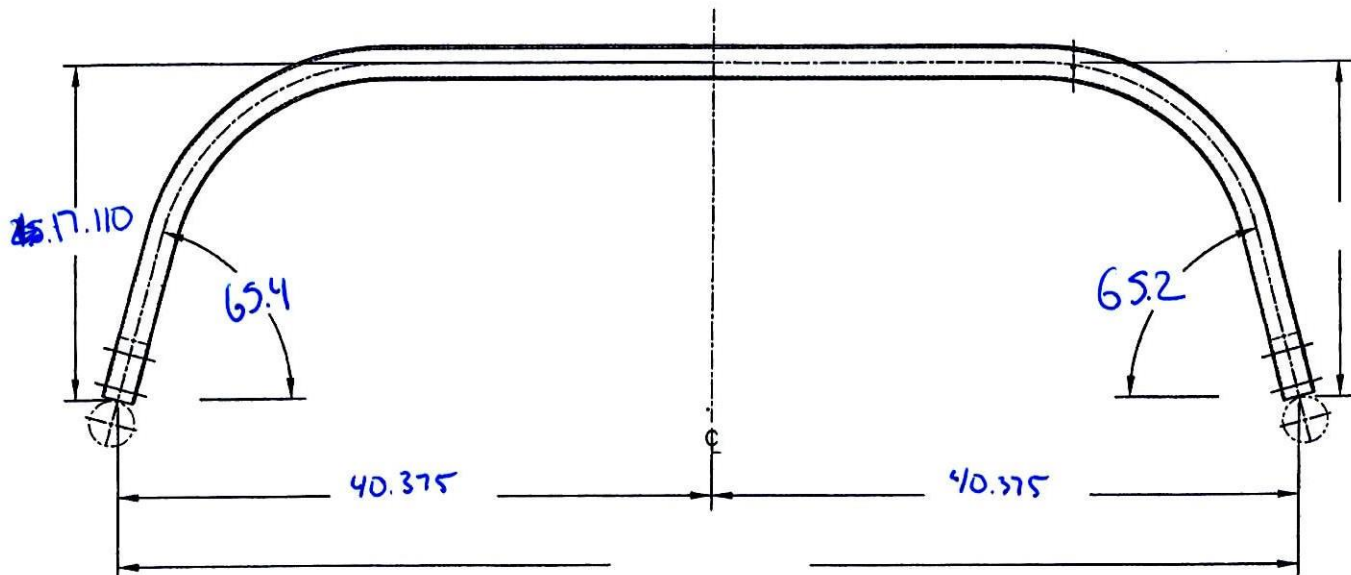
	SIDE A	SIDE B
MAX 2%	0	.09

TWIST

	SIDE A	SIDE B
MAX 0.25"		

DART AEROSPACE LTD	Work Order:	
Description: MID HEIGHT AFT CROSSTUBE	Part Number:	D135-1027-253
Inspection Dwg: D135-1027-253 Rev: B		Page 2 of 2

Required Dimension	Min	Max
Height	16.87"	17.13"
1/2 Span	40.28"	40.54"
Angle	64°	66°
Total Span	80.56"	81.08"
Bending Passes		
Crushing	0%	2%
Twist	0.0"	0.25"



Measured by:		Checked by:		QC Inspector:	
Date:		Date:		Date:	

Engineering Approval: (If necessary)		Date:	
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Rev	Date	Change	Revised by	Approved
A	18/01/16	New Issue	ED	



SHIPPING BILL

BOL 12425
16/01/2018

Tube Caron Inc.

99 Louis-Joseph-Doucet
Lanoraie, QC, Canada
J0K 1E0
Phone: 450-887-2766

Fax: 450-887-2897

Ship To:

Dart Aerospace Ltd
1270 Aberdeen Street
Hawkesbury, ON, Canada
K6A 1K7
Phone : 613-632-1053

Fax : 613-632-4443

Sold To:

Dart Aerospace Ltd
1270 Aberdeen Street
Hawkesbury, ON, Canada
K6A 1K7
Phone : 613-632-5200

Fax : 613-632-4443

Third Party Billing:

Ln	Item	Qty	Po	Job	Weight	UOM
1	PALETTE	1			20.00	Pounds
	BOITE COMBO	1			13.00	Pounds
	D135-1027-153 REV B	2	PO038679	J17875-2	29.14	Pounds
	D135-1027-253 REV B	4	PO038679	J17875-1	79.24	Pounds

JAN 22 2018

Carrier:
Phone:
Way Bill:

Journey Freight
1-888-633-1252 #3221

Fob:
Freight Charges:

Fob Lanoraie
Collect

Total Of Packages :

1 SKID
48 X 40 X 91

Total Weight: 141.38 #

Carrier : Journey Freight

Shipper : Tube Caron Inc.

Quincy Tawangan
Not Applicable For Insurance Purposes

Declared Value : (No Additional Insurance Required)

16-01-2018



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038679

Supplier: TUB001-VC
Tube Caron Inc.
99 Louis-Joseph-Doucet Street
Lanoraie
QC
JOK 1EO Canada
Phone: 450-887-2766
Fax: 450-887-2897

PO No: PO038679
PO Date: 12/18/17
Due Date: 1/12/18

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Phone:

DEC 19 2017

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	D135-1027-253P		Mid Height Aft Crosstube As Per Dwg D135-1027-253 Rev. B	Firmed	1/12/18	1 pcs	0 pcs	1 pcs	\$600.00/pcs	\$600.00
Line Item Note job# 169662 - Priority 1										
2	D135-1027-253P		Mid Height Aft Crosstube As Per Dwg D135-1027-253 Rev. B	Firmed	1/12/18	1 pcs	0 pcs	1 pcs	\$600.00/pcs	\$600.00
Line Item Note job# 169670 - Priority 1										
3	D135-1027-253P		Mid Height Aft Crosstube As Per Dwg D135-1027-253 Rev. B	Firmed	1/12/18	1 pcs	0 pcs	1 pcs	\$600.00/pcs	\$600.00
Line Item Note job# 169671 - Priority 1										
4	D135-1027-253P		Mid Height Aft Crosstube As Per Dwg D135-1027-253 Rev. B	Firmed	1/12/18	1 pcs	0 pcs	1 pcs	\$600.00/pcs	\$600.00
Line Item Note job# 169672 - Priority 1										
5	D135-1027-251P		Std Height Aft Crosstube As Per Dwg D135-1027-251 Rev. C	Firmed	1/12/18	1 pcs	0 pcs	1 pcs	\$600.00/pcs	\$600.00
Line Item Note job# 169663 - Priority 2										
6	D135-1027-251P		Std Height Aft Crosstube As Per Dwg D135-1027-251 Rev. C	Firmed	1/12/18	1 pcs	0 pcs	1 pcs	\$600.00/pcs	\$600.00
Line Item Note job# 169675 - Priority 2										
7	D135-1027-251P		Std Height Aft Crosstube As Per Dwg D135-1027-251 Rev. C	Firmed	1/12/18	1 pcs	0 pcs	1 pcs	\$600.00/pcs	\$600.00
Line Item Note Job# 169673 - Priority 2										
8	D135-1027-251P		Std Height Aft Crosstube As Per Dwg D135-1027-251 Rev. C	Firmed	1/12/18	1 pcs	0 pcs	1 pcs	\$600.00/pcs	\$600.00
Line Item Note job# 169674 - Priority 2										
9				Firmed	1/12/18	1 pcs	0 pcs	1 pcs	\$600.00/pcs	\$600.00

CERTIFICATE OF CONFORMANCE

CUSTOMER : Dart Aerospace
DATE : January 16, 2018
P.O.# PO038679

I certify that the following parts were manufactured to the specifications stated on the drawings listed below.

Note: Material for manufacturing of parts is provided by Dart Aerospace.

PART NO.	QTY.	DRAWING NO. / REV.
D135-1027-253 MID HEIGHT AFT XTUBE	4	D135-1027-253 / REV.B
D135-1027-153 MID HEIGHT FWD XTUBE	2	D135-1027-153 / REV.B

Note: 1) 2x D135-1027-153 were manufactured instead of the 4 requested on PO038679 due to the limited extrusions available. This information was communicated to Robert Aboud.

2) Center hole of Ø0.194" on one of the D135-1027-253 parts has a small defect that was accepted by Eric Downing.

Sincerely,



Michael Plante



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO039676**

Supplier: SKY002-VC
Skyservice
6120 Midfield Road
Mississauga
ON
L5P 1B1 Canada
Phone: 905-678-5636
Fax: 905-678-5841

PO No: PO039676
PO Date: 4/23/18
Due Date:
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	169678	D135-1027-153	Mid Height Fwd Crosstube ISSUE P/O: _____ C OF C IS REQUIRED	Firmed		1 pcs	0 pcs	1 pcs	\$167.00/pcs	\$167.00
	169677			Firmed		1 pcs	0 pcs	1 pcs	\$167.00/pcs	\$167.00
Sub Total:						2	0	2		\$334.00

2	169671	D135-1027-253	Mid Height Aft Crosstube ISSUE P/O: _____ C OF C IS REQUIRED	Firmed		1 pcs	0 pcs	1 pcs	\$167.00/pcs	\$167.00
	169670			Firmed		1 pcs	0 pcs	1 pcs	\$167.00/pcs	\$167.00
	176211			Firmed		1 pcs	0 pcs	1 pcs	\$167.00/pcs	\$167.00
Sub Total:						3	0	3		\$501.00

Grand Total: **\$835.00**

Order Notes

rec'd AT 18/4/18

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

**skyservice****Work Order Traveler**
Sky Service F.B.O. Inc.

10105 Ryan Avenue, Dorval, Quebec, H9P 1A2

TCCA AMO 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO35758	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: PO39676
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

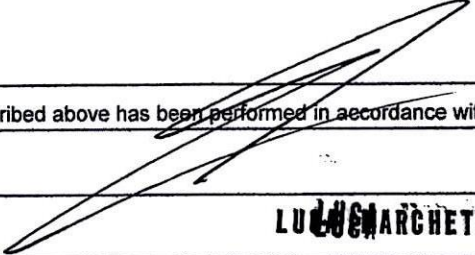
Work Required:

CARRY OUT LIQUID PENETRANT INSPECTION ON FIVE MID HEIGHT AFT CROSSTUBES P/N
: D135-1027-253 AS PER PO : PO39676

- 1 - JOB SHEET : 176211 2 - JOB SHEET : 169678
3 - JOB SHEET : 169677 4 - JOB SHEET : 169671
5 - JOB SHEET : 169670

Action Taken:	Date:	Initial/Stamp:
LIQUID PENETRANT INSPECTION CARRIED OUT AS PER ASTM E-1417M-13 NO CRACK FOUND PEN. ZL-56, MPO13600, UV M-20141, CLEANER SKC-S MPO13923 , DEV. MPO11715	APR 23 2018	LM 

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature:	ACA/SCA Stamp	Date:
 Name: LUC MARCHETTI		APR 23 2018